

EMERGENCY PREPAREDNESS REVIEW COMMITTEE

EXECUTIVE SUMMARY

City of Philadelphia
June 30, 2006



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Letter Of Transmittal

June 30, 2006

Mayor John F. Street
Mayor's Executive Office
Room 215 City Hall
Philadelphia, PA 19107

Dear Mayor Street:

We commend your foresight and leadership in establishing the Emergency Preparedness Review Committee (EPRC) to examine, with the assistance of independent experts, the status of Philadelphia's emergency preparedness and response capabilities. The formation of the EPRC came on the heels of the devastating Hurricane Katrina nearly one year ago and against the long shadow of the events of September 11, 2001.

Over the past six months, the EPRC conducted a comprehensive review of thousands of pages of existing documents, agreements and plans—coupled with more than 200 extensive in-depth interviews and site visits—as part of the process designed to evaluate the current state of emergency planning and response and to offer specific recommendations for improvement.

This report would not have been possible without the hard work, dedication and candor of numerous City officials and staff from every area of the government, and particularly those involved on a daily basis with emergency preparedness and response. These departments include, but are not limited to, emergency management, police, fire and public health. We are grateful to them all as well as to representatives of other governments of the region, members of the greater Philadelphia business community, civic leaders, other stakeholders, and the James Lee Witt Associates (JLWA) team. We thank them for their commitment and service to this effort.

The recommendations address the most pressing issues facing City emergency preparedness and response. The City has taken a significant step forward by commissioning this review and implemented several recommendations before the report is released. For example, a task force of transportation, law enforcement and emergency management officials has been working for several months to develop regional emergency evacuation plans. The City recently installed additional barriers around the Police Administration Building to protect the City's critical emergency communications center. Finally, scores of City departments have been working diligently to develop and implement continuity of government plans.

Now it is time to focus on implementing the remaining recommendations to make Philadelphia a better prepared and more resilient community for all its citizens and those in the greater Philadelphia region.

Sincerely,

Pedro A. Ramos, Esq., Managing Director
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Co-Chair, EPRC

Dr. Harvey Rubin, Director
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Executive Summary



The scenes are permanently seared into memory. An entire American city is flooded, causing the loss of more than 1,300 lives. Fearing a similar fate, millions in another city try to flee the hurricane only to find gas stations closed not for the shortage of fuel, but for the lack of security. And in Europe, a major city is devastated when a terrorist attack on the transit system kills more than 50 and injures hundreds.

In the aftermath of such catastrophes, government leaders have been forced to reflect on the emergency response effort, focus on lessons to be learned and take action to prevent, if possible, a recurrence. In Philadelphia and other cities around the country, leaders closely followed the events in New Orleans, Houston, and London and resolved to become better prepared.

On September 16, 2005, Philadelphia Mayor John F. Street announced:



**Mayor John
F. Street**

I am establishing an emergency preparedness review committee to evaluate all our existing emergency medical, evacuation and business continuity plans; it will thoroughly analyze the potential catastrophic threats we face and recommend measures to both deter as well as respond to those threats.

The Mayor created the Emergency Preparedness Review Committee (EPRC), and appointed 45 individuals to the EPRC, including the Commissioners of Police, Fire and Public Health, leaders from the private sector and academia, leaders from the critical non-profit sector; representatives of special needs populations, and representatives of the Commonwealth of Pennsylvania and Federal government. He appointed Pedro A. Ramos, Esq., the City's Managing Director; and Harvey Rubin, M.D.,



Courtesy of City Representative's Office

Ph.D., Director of the Institute for Strategic Threat Analysis and Response (ISTAR) at the University of Pennsylvania, to serve as co-chairs.

Eight of the appointees, non-City employees, were asked to serve as chairs and co-chairs of the seven subcommittees: Chemical, Biological, Radiological, Nuclear and Explosive Detection and Response; Continuity of Government; Critical Infrastructure; Health and Human Services; Legal and Intergovernmental Affairs; Public Information and Community Engagement; and Vulnerable Populations. The Managing Director appointed 11 City staff to manage and support the effort. Recognizing the importance of the task, the Committee, following a competitive solicitation process, engaged James Lee Witt, an internationally recognized leader in emergency management, and his firm, James Lee Witt Associates (JLWA), to serve as its outside consultant.

The Committee has identified and included in its report the City's numerous strengths in emergency preparedness and response. However, the primary purpose of the EPRC was to identify gaps between where the City is and where it should be based on generally accepted standards and best practices and, more importantly, to identify ways to address those gaps before they are revealed during an actual major

disaster.

The City of Philadelphia, the second largest city on the East Coast, must be well prepared for any emergency. The City is America's Birthplace, home to many of our most important icons and institutions, and serves as the economic and social center of the eleven-county, tri-state region, which has a population of 6.2 million people, according to the United States Census Bureau.

The Committee, which made more than 200 specific recommendations for improvement, is unanimous in its view that while the City has performed well with limited resources dedicated to emergency management, it must act to make emergency management, planning, and response a significantly higher priority of the government. This includes, but is not limited to, committing to additional staff and resources to enhance its emergency preparedness capabilities. Clearly, the EPRC process has generated tremendous momentum for positive change. With leadership and continuing support from the City government, businesses, civic organizations and concerned citizens, the City of Philadelphia can become one of the best prepared and most resilient communities in the nation.

The City of Philadelphia repeatedly displays the ability to come together when faced with a major event. Local, state and federal governments, the private sector and many non-governmental and civic organizations worked together to successfully host the National Republican Presidential Nominating Convention in 2000. With 32 days advance notice, the City planned and hosted Live 8 in July 2005, a free, all-day benefit concert featuring some of the world's most popular performers. Over one million people attended the event without significant incident. Similarly, it is common for the City of Philadelphia to simultaneously manage multiple, highly-visible, challenging events, such as a Presidential visit, a public protest, winter storm and a multi-alarm fire. Fortunately, in recent history Philadelphia has not faced a citywide catastrophic event.

The Committee identified resource and procedural gaps, both within the City government as well as between the City and key sectors such as the hospital sector, which could result in the City becoming quickly overwhelmed in a large-scale or catastrophic event.

The gap analysis also revealed that the City relies heavily on individual staff knowledge and relationships, and has been inconsistent in up-to-date documentation of its plans, protocols and procedures to plan, prepare and respond to major events. Relationships and situational knowledge are important for disaster planning and training to ensure effective response and long-term resilience. However, in a catastrophic event, select, veteran City staff may be unavailable, and personnel that will be called upon to provide relief or assist in the response and recovery may not have the same knowledge or relationships.

The City needs well-defined processes to assist individuals with special needs as well as educate all citizens on how to best prepare themselves and their families in an event of an emergency.

Background and Process

The process adopted by the EPRC was a comprehensive review of existing documents, agreements and plans as well as in-depth interviews with more than 200 individuals. It was designed to capture the City's current state of emergency preparedness and response capabilities. Through this methodology, gaps and areas for improvement were identified.

This approach, while helpful, tends to overlook the thousands of actions performed daily to protect the citizens of the City of Philadelphia. This report attempts to recognize some of the most notable of those strengths, while at the same time address gaps that can lead to recommendations for improvement.

The gap analysis was enhanced through: investigative field trips to New York City, Chicago and Washington, D.C. to further identify best practices and hear about lessons learned; observation of the regional training exercise in response to a hypothetical terrorist attack at the Philadelphia International Airport on May 10; Congressional visits in May; meetings with former City officials; and other regional planning and private sector meetings, such as the tour of SunGard data recovery and storage facility.

The EPRC members are grateful to those who volunteered their time and provided frank comments and recommendations to help in this process. With their help, the EPRC team crafted recommendations to address the gaps found in Philadelphia's emergency preparedness.

The analysis also showed that the City already participates in regional disaster planning and resource sharing, especially regarding potential threats from terrorism and industrial accidents. However, the City must do more regionally on additional issues, such

Executive Summary

as creating a comprehensive evacuation plan, which includes scenarios where communities outside the City seek to evacuate citizens to Philadelphia.

The City should quickly fix two significant communications issues: the lack of interoperable communications in underground SEPTA tunnels and the one way communications from EMS ambulances to area hospitals. Although the City leads efforts to establish interoperable public safety communications regionally among first responders, resolving these communication challenges are critical to emergency preparedness and response.

The Committee noted examples of the public and private sectors working closely on public safety efforts, including the Center City District and the Delaware Valley Healthcare Council. However, it also documented ways that Philadelphia can benefit from adopting best practices from other cities and regions to create stronger public-private partnerships. Among these leaders are the public private partnerships in the City of New York and the City of Chicago. Similarly, strengths and vulnerabilities were identified in the joint efforts to prepare for utility and communication outages.

The Committee found that most City departments had not sufficiently planned to ensure the continuity of government operations in the event of a major disaster. Fortunately, this finding surfaced very early in the review and already is being addressed.

A simultaneous review of 75 of the nation's largest urban areas, released just a few weeks ago, found that many other cities share in some of the shortcomings identified above. Additionally, the London Assembly released a report last month, which examined the lessons learned from the response to the bombings on July 7, 2005. That report makes 54 recommendations, focusing on the need for interoperable communication in its Underground, better communications with the Ambulance Service, the need to enhance citizen education about preparedness, and the dissemination of more frequent updates to citizens during an emergency.

Strategic Themes: Assessment and Recommendations

When compiling and reviewing the recommendations from the individual subcommittees, many recommendations overlapped or addressed similar issues. Eight primary themes of recommendations emerged:

- 1.0 Enhance Emergency Management Capacity
- 2.0 Enhance Emergency Communications
- 3.0 Integrate Health and Human Services into Emergency Management
- 4.0 Enhance Federal, State, Regional and Local Partnerships
- 5.0 Promote Transparency and Community Engagement in Emergency Management
- 6.0 Ensure Continuity of Government and Continuity of Operations Planning
- 7.0 Protect Critical Infrastructure and Promote Public-Private Partnerships
- 8.0 Develop Comprehensive Evacuation Plans

Each strategic theme is summarized briefly below with background information on the City of Philadelphia's current strengths and gaps. **Following each summary, key recommendations are listed in bold.**



EPEX 2005: Emergency Preparedness Exercise at Philadelphia International Airport, Credit: Rick McMullin, Philadelphia International Airport

1.0 Enhance Emergency Management Capacity

I. Increase the Capabilities of the Office of Emergency Management

The size and scope of the Philadelphia Office of Emergency Management (OEM) is severely limited given the City's profile in terms of population, economic and historic importance, and the natural and potential terrorist threats it faces. Even with such limits, much has been accomplished during the past few years, especially with other jurisdictions within the region. However, due to a general lack of resources, the City's OEM has not been able to comprehensively address many standard emergency management functions, such as:

- Long-term, strategic planning
- Annual updates of emergency plans
- After-action reports that document lessons learned and that are incorporated into plans
- Ongoing citizen education and training on emergency preparedness
- City-only table top or senior-level exercises
- Facility and logistics planning for mass casualty events
- Coordination of efforts for special needs/vulnerable populations and for service animals and pets
- Training of City personnel on the National Incident Management System (NIMS) or Incident Command System (ICS)
- Enhanced coordination with other key segments of the private and non profit sectors, such as business/finance/hospital associations, the healthcare community, faith-based organizations, and universities

Recommendations:

1. Increase the authority and raise the profile of the OEM by appointing a Deputy Managing Director of Emergency Management within the Office of the Managing Director. This would further recognize the critical role of civilian oversight and accountability for public safety and preparedness.

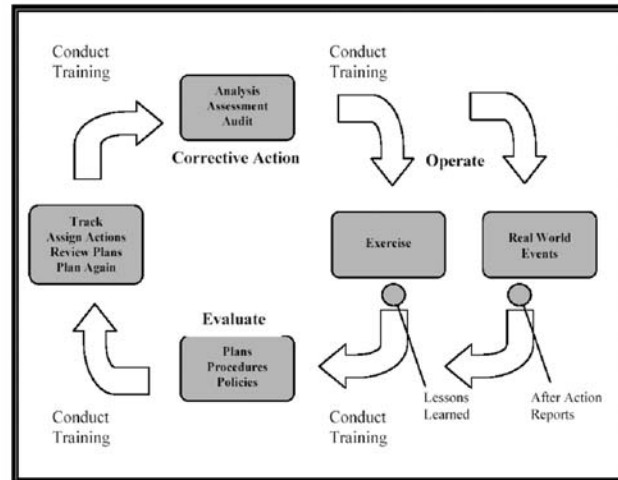


Figure 1: Emergency Management Planning Cycle

2. Increase staff in the OEM to perform the following functions: planning, training, exercising, citizen education, and coordination with local businesses, universities, the medical community, and other entities that assist individuals with special needs.
3. Staff the OEM 24 hours a day, seven days a week. The City of Philadelphia warrants a 24/7 emergency management function beyond the tactical presence provided by police and fire dispatch operations. Other cities, such as New York, Chicago and Washington, DC operate 24 hours a day, seven days a week.
4. Develop stronger situational awareness capabilities. Though the City has the capacity to tactically manage events, the ability to strategically plan for and anticipate events is limited. The City should work to develop strategic emergency management capabilities, deploy appropriate technology to monitor and assess impending emergency events, and enhance overall situational awareness capacity.
5. Assign positions in the OEM with the responsibility to work with special needs/vulnerable populations and organizations that provide services to special needs/vulnerable populations. Although several positions will have responsibilities for special needs



Courtesy of Philadelphia International Airport

populations, designate a single point-of-contact for outside agencies who work with special needs populations.

1.2 Adopt National Best Practices and Standards for Emergency Planning and Response

The scope of the City's emergency management planning and response needs extend far beyond the roles and responsibilities of the OEM. To some, it is obvious that emergency management authority includes at least the *Police* and *Fire Departments*. The recent focus on the potential threat of pandemic flu underscores that the *Public Health Department* also clearly has a role in emergency management. In fact, all departments of City government have roles and responsibilities regarding emergency management.

The scale of some emergencies may even exceed the capacity of the City to handle them alone and may require the assistance and cooperation of national, Commonwealth, and regional partners as well as the active participation of private and non-profit sectors and an educated and prepared general public.

The National Response Plan (NRP), developed by the Department of Homeland Security (DHS), establishes a comprehensive, all-hazards approach to

National Incident Management System (NIMS)

NIMS is a system mandated by Homeland Security Presidential Directive (HSPD) 5 that provides a consistent nationwide approach for federal, state, local and tribal governments; the private-sector and nongovernmental organizations to work effectively and efficiently together to prepare for, respond to, and recover from all types of emergencies, regardless of cause, size or complexity. To provide for interoperability and compatibility among federal, state, local and tribal capabilities, the NIMS includes a core set of concepts, principles, and terminology. HSPD-5 identifies these as the ICS; multiagency coordination systems; training; identification and management of resources (including systems for classifying types of resources); qualification and certification; and the collection, tracking, and reporting of incident information and incident resources.

For more information on HSPD 5 that mandates NIMS, please see (http://www.fema.gov/pdf/reg-ii/hspd_5.pdf). Visit the FEMA website, <http://www.fema.gov/emergency/nims/index.shtml> for more information on NIMS.

enhance the ability of the United States to manage domestic incidents. It forms the basis for federal government coordination with state, local and tribal governments and the private sector during presidential disaster declarations and other major events. The NRP is predicated on NIMS, adopted as federal policy in 2004. Together, the NRP and NIMS provide a nationwide template for coordination to prevent or respond to threats and disasters.

The NRP identifies Emergency Support Functions (ESFs) to provide the structure for coordinating interagency support for emergencies. This approach is based on the accepted premise that effective responses to all disasters have common elements and that those elements form the basis for comprehensive and collaborative disaster planning. The ESFs that are recommended in NIMS are organized into

the following categories:

1. Transportation
2. Communications
3. Public Works
4. Fire
5. Emergency Management
6. Mass Care
7. Resource Support
8. Public Health
9. Search and Rescue
10. Oil and Hazardous Materials
11. Agriculture/Food/Natural Resources
12. Energy
13. Public Safety
14. Long-Term Recovery
15. External Affairs

The federal government and the Commonwealth of Pennsylvania adopted similar versions of the functional approach to emergency management. The Pennsylvania Emergency Management Agency (PEMA) issued guidance in 2003 requiring the use of ESFs in operation plans and approach. Currently, the City of Philadelphia does not organize their Emergency Operations Plan (EOP) or their planning efforts by ESFs. This could create confusion during an event that required state and federal assistance.

Recommendation:

1. Revise the EOP to adopt the established functional approach for preparing for and responding to emergencies, thereby providing a common method, language, and protocol for responding to disasters. Adopt this DHS functional approach to disaster preparedness and response.

1.3 Clarify Command and Control

Command and control refers to the process of directing, controlling, and coordinating response and recovery operations at any incident. As disasters cross jurisdictional and organizational lines of responsibility, direct lines of command and control can be strained and confused at the exact time they are

The Incident Command System (ICS)

ICS was developed after a series of wildland fires in southern California in 1970. Federal, state, and local fire services involved in the fire siege recognized hundreds of problems with their response and coordination during the fires. The fire services joined together in the FIRESCOPE Program to resolve those problems. The ICS was a major product of their joint effort.

ICS is a management system, developed around specific design criteria and modern management concepts. ICS is organized into the following functions, which are led by an Incident Commander: planning, finance and administration, operations, and logistics. ICS uses an incident action planning process that is systematic and comprehensive; multiple agencies and emergency response disciplines can be integrated into a common organization using the process. The unified command concept used in ICS provides the most effective means of coordinating and directing multiple disciplines on major civilian emergencies.

needed most. Because this has become a common problem among jurisdictions throughout the United States, NIMS has adopted the principles of Incident Command System (ICS), long used by fire departments throughout the country.

Command and control are divided between operations at the field level and strategic and coordinated response at the Managing Director level. Important aspects of command and control include the following:

- Adoption and use of ICS and NIMS throughout City government
- Detailed organizational roles, titles and responsibilities for each incident management function that is specified in the emergency operations plan
- Sustainable, ongoing planning functions, such as policies and procedures, that detail response and training activities

As noted previously, the City of Philadelphia has repeatedly come together to manage significant



Courtesy of Philadelphia Fire Department

planned events and moderate unplanned events. Through the EPRC process, it has been noted that much of this is accomplished without standing formal structures or a practice of writing comprehensive after action reports. Given the lack of depth in the emergency management area, the possible retirement of key city staff through the Deferred Retirement Option Plan (DROP) program, and the recognized need for intergovernmental cooperation, it is even more important that the City adopt, implement, and exercise the formal structures used by the Federal Government and the Commonwealth.

NIMS training is a requirement for preparedness funding from DHS, and training for designated personnel and select elected officials must be in place by September 30, 2006. The City utilizes some elements of both of these systems, especially for first responders. However, the City would benefit from more complete adoption of these standards, as they allow a clearer understanding of roles before the disaster and facilitate outside assistance and coordinating activities when other jurisdictions become involved.

Recommendations:

1. Adopt ICS and NIMS as City policy.
2. Provide focused training on ICS and NIMS within all organizations and departments that have a role in emergency management.

I.4 Enhance Drills, Exercises and Training

The City of Philadelphia's first responders extensively participate in regional terrorism training exercises. However, such exercises have not involved full activation of the Emergency Operations Center (EOC). The City also has not held exercises involving full activation of the EOC in recent years. Senior-level training and exercises have not occurred in years. Aside from first responders, City staff members often do not have a clear understanding of their roles and responsibilities during a disaster or the roles and responsibilities of others under the City's emergency operations plan. Thus, additional training and exercising should be a priority.

The City should continue to support training to respond to Chemical, Biological, Radiological, Nuclear and Explosive (CBRNE) events to ensure that the City maintains the necessary depth of trained personnel.

Training and exercises require up-to-date plans. Unfortunately, existing written plans and associated planning activities are insufficient. Many departments, nonprofit organizations, and other civic entities are working to help the City be prepared for future disasters, yet these organizations are not included in plans, efforts with them are not well coordinated, and interdepartmental awareness of what others are doing is minimal.

Recommendations:

1. Schedule exercises to test City plans and the City's EOC.
2. Designate a person or agency to focus on city-wide training. Designate staff in the OEM to focus on conducting exercises for City staff, including Cabinet-level staff and elected officials, who would be expected to lead in a real event.
3. Enhance CBRNE detection and response capabilities through special operations training and resources, specifically, but not limited to training on technical rescue, hazmat response teams, decontamination operations, bomb squad, and police Major Incident Response Team.
4. Include organizations that work with the special needs population in exercises and training to ensure effective planning. Develop a list of community organizations and individuals that can assist the City in these efforts.

1.5 Upgrade Emergency Operations Systems and Facilities

The EOC shows age and little investment. The adequacy of the EOC will directly affect the likelihood of effective coordination and command and control in



Courtesy of Philadelphia Fire Department

a disaster. The 911 call center and police communications centers have physical vulnerabilities. Security enhancements and damage mitigation opportunities provided by modern surveillance systems are relatively absent in most aspects of the City's operations and systems. However, in a non-binding referendum held in May, City residents overwhelmingly voted for the expanded use of surveillance cameras.

Recommendations:

1. Create a new Joint Emergency Operations Center outside the immediate Center City area. The

Center could provide a common location for important objectives:

- Integrate the OEM and the EOC, the 911 Center, and Police and Fire dispatch
- Establish an appropriate facility for the Bomb Squad
- Locate a consolidated Public Health lab, including Level 3 lab
- Create a new Philadelphia regional operation center for other entities such as a replacement backup center for Southeastern Pennsylvania Transportation Authority (SEPTA) operations

2. Recognizing the time required to achieve a Joint Emergency Operations Center, address the following in the short-run:

- Designate and develop immediately sufficient backup sites, outside Center City, for the 911 Center, police communications, fire communications, a communications center for continuity of government, and the EOC.

3. Incorporate state-of-the-art technology in the EOC that fully integrates other City software systems and capabilities.

4. Increase the disaster recovery and backup capability of citywide and department mission critical information technology systems.

5. Install barriers to protect the Police Administration Building, which houses the City's entire 911 operations and Police dispatch operations.

1.6 Update Policies and Clarify Legal Authorities

The Philadelphia City Solicitor committed significant staff and resources to City emergency preparedness planning and to the EPRC process. Since September 11, 2001, a full-time attorney is dedicated to issues of homeland security and emergency management. An extensive analysis of the policies and laws pertaining to emergency preparedness was conducted by the Law Department, and new legislation that addresses current gaps in the Philadelphia Code will be drafted for consideration by the Mayor and City Council. A

Definition of Special Needs/Vulnerable Populations

When addressing the needs of vulnerable populations, the leadership of the EPRC came to consensus on the term and definition used to refer to vulnerable populations. The EPRC has accepted the definition, as created by the Vulnerable Populations Subcommittee.

The Subcommittee's definition includes:

...the segment of the community with increased risk in a disaster. The term encompasses groups that may not be able to access (or have reduced access to) the information, resources or services offered by the community in disaster preparedness, response and recovery. Traditionally, the vulnerable populations include subgroups such as those with physical, mental or cognitive disabilities (e.g., who rely on augmentative communication devices); illiterate or non-English speaking; the homeless; people who depend on continuous care from a hospital, nursing home, drug rehabilitation facility, prison facility, or home healthcare; individuals or families living in poverty; the unemployed; the elderly and frail; pets and service animals and the people who depend on them; and children.

legal resource guide that outlines the legal framework relating to emergency preparedness is being produced to support the City's first responders.

The Philadelphia Code § 10-819 provides the Mayor with authority to declare a state of emergency and with broad powers to control or halt the movement of people and transportation in and out of the City, restrict the sale of gasoline and firearms, establish a curfew, and other related powers that deal with civil unrest or disturbance. However, it does not explicitly authorize the Mayor to evacuate the City, order a large-scale shelter-in-place of citizens, or address today's natural and man-made threats.

Under current law, the City Council cannot act on emergency legislation unless a majority of its statutory members are available. Finally, few formal partnerships, agreements, and pre-event contracts exist to address City needs during a disaster, such as debris removal, food, water, fuel, or other disaster-related services that affect special needs/vulnerable populations. The complete list of the Legal/Intergovernmental Subcommittee recommendations can be found at Appendix A.

Recommendations:

1. Update the Mayor's authority to declare a state of emergency. An updated Code provision will more effectively address today's threats of natural or man-made disasters and terrorist attacks and will ensure and clarify as appropriate the Mayor's authority in an emergency.
2. Create an Interagency Procurement Committee by Executive Order to evaluate the need for various goods and services to be contracted prior to a disaster. Federal Emergency Management Agency regulations require competitively bid contracts for goods and services, such as debris removal, for federal reimbursement. For example, the Office of Adult Services (OAS) has the resources to provide relief (food, water and shelter) for 1,000 to 2,000 citizens, and the American Red Cross—Southeastern Pennsylvania Chapter can provide for up to 10,000 or more citizens, but any event that would affect 100,000 or more citizens will require significant resources that may be difficult to acquire during or immediately after any event. Pre-event contracts for these goods and services would enhance the City's ability to respond to a disaster, and would enable the City to sustain itself for 72 hours or more following a major disaster.
3. Consider Council legislation to authorize mutual aid agreements and conform Council rules and voting requirements to emergency conditions.
4. Incorporate the term "individuals with special needs" or "Special Needs Population" to refer to the groups who have unique needs in an emergency, as identified in the Vulnerable Populations Subcommittee's definition. This definition and terminology should be incorporated throughout the City's emergency preparedness efforts.

2.0 Enhance Emergency Communications

Recent terrorist and natural disaster events make evident the importance of communications and communications systems and the severe impairment on effective command and control when key communication systems are unavailable.

The City recognized problems of interoperability with its regional partners and, with the substantial assistance of federal Urban Area Security Initiative (UASI) grants, has led and participated in several ongoing initiatives, such as the SmartZone© switch, which links the trunked radio systems among Fire, EMS and Police.

The City is in the process of installing a new Computer Assisted Dispatch (CAD) system that will be used by Police, Fire, and City Communications. SEPTA will correspondingly enhance its current capabilities¹. The 911 Center at the Police Administration Building also is being upgraded. Two separate telephone central offices provide redundant operations support for police communications.

The hospitals, in coordination with the Southeastern Pennsylvania Regional Task Force, are conducting a limited, nine-hospital demonstration pilot of the Collaborative Active Response Emergency System (CARES). If fully implemented, it would utilize both E Team, an incident management software that the region currently uses, and data mining software to link all hospitals, public health, emergency management, and other appropriate agencies into a common incident management and Web-based communications system.

The job of ensuring the safety of the public in the City of Philadelphia is shared by many different agencies at every level of government. The need for cooperation and communication among these various agencies, especially in the mass-transit underground areas, is critical to disaster mitigation and mass

evacuation from any emergency event.

Although significant steps are under way to address radio communications interoperability within the City and surrounding areas, the major deficiency identified is the lack of radio communications in the underground portions of the subway system. Within the medical sector, no two-way radio capability exists between City EMS/ambulances and hospitals.

These and other communication deficiencies identified in the report should be addressed by establishing more structured institutional relationships within City government and among the City and outside entities, including SEPTA, other mass transit providers, the medical sector, the School District, the financial sector, the federal sector, and other private and nongovernmental entities.

The City continues to maintain separate departments for communications and information technology services. Police and Fire also have individual communications departments. The EPRC review revealed instances of a lack of a unified approach to communications challenges.

Finally, emergency communication to citizens will be addressed under the separate theme Promoting Transparency and Community Engagement.

Recommendations:

1. Focus and consolidate current efforts to urgently address underground communication issues under a single City/Commonwealth/SEPTA Task Force. This Task Force should be charged with identifying, obtaining funding for, and implementing a solution for underground communications. This should be among the highest priorities of the EPRC implementation effort.
2. Continue to implement ongoing initiatives de-



Courtesy of Philadelphia Fire Department

- signed to address critical interoperable communications gaps, including the Tier I Short Range Tactical Communications Interoperability initiative and the Tier II Microwave Communications Technology effort, to link the eleven-county dispatch center consoles together. Coordinate these efforts with those of the Commonwealth.
3. Support implementation of CARES to enhance E Team and automate the collection of key data to maintain a “real-time” picture of the operational readiness of the healthcare system in order to increase surge capacity, facilitate victim tracking, strengthen surveillance, and more efficiently respond to state and federal reporting requirements.
 4. Continue to expand the utilization of the E Team emergency management internet-based software to regional and other appropriate partners. Clarify Police and Fire Department procedures regarding the utilization of the E Team software.
 5. Push the development of two-way radio capability among hospitals, private ambulances, and City EMS ambulances.
 6. Lead a comprehensive evaluation of current communications capabilities for healthcare organizations and develop an integrated plan for use of satellite phones, 800 MHz radios, paging systems, HAM radios, text messaging, and other technologies. Coordinate these efforts with those of the Commonwealth.
 7. Establish a comprehensive approach for the purchase and integration of communication and information technology. Ensure that all technology and information that is provided to the public, whether distributed electronically or in print, is accessible according to the guidelines provided by Section 508 of the Rehabilitation Act. This should include information concerning accessible shelters and shelters for pets.
 8. Authorize and support console integration of certain Commonwealth and Philadelphia radio frequencies. Develop a list of the systems that each department uses and the representative or manager of those systems.

3.0 Integrate Health and Human Services into Emergency Management

With the possibility of chemical and biological attacks or pandemic disease outbreaks that would force cities to treat or shelter mass numbers of casualties, emergency management professionals have realized the importance of planning, training and exercising more closely with hospitals, public health facilities, the broader medical community, and agencies that provide emergency shelter and support services.

The City of Philadelphia has tremendous public health resources and hospitals available in the city and in the region. The hospitals employ more than 100,000 people, maintain comprehensive disaster plans, and conduct annual disaster drills. As part of a broader regional plan, all the city's hospitals participate in one of the nine Emergency Health Care Support Zones which meet on a monthly basis to plan and coordinate the healthcare delivery system's response to potential natural or man-made disasters. In addition to hospital personnel, each "Zone" meeting includes other healthcare organizations, public health, emergency management, and other relevant public and private sector organizations. Aside from building relationships, the zone structure has facilitated multi-hospital training and exercises.

Between 28 and 42 municipal ambulances are on duty in the city daily, depending on demand. Approximately 100 non-municipal ambulances provide patient transportation every day.

Although the Philadelphia Department of Public Health has conducted two points of dispensing (POD) exercises, the City should more formally integrate hospitals into their planning, training, and exercise efforts and programs. The City also should designate hospitals as part of the City's critical infrastructure. Hospitals are a significant resource for the city, especially in large scale emergencies. As planning efforts continue, hospitals can work to

ensure interoperable equipment purchases between institutions and with the City. Thus, in the future, this equipment can be used seamlessly with City assets in a catastrophic event.

The Office of Adult Services (OAS) drafted an agreement with the American Red Cross—South-eastern Pennsylvania Chapter for emergency shelter services and has a contract for emergency food services. OAS should develop plans to provide appropriate facilities to shelter and feed large numbers of people in need of isolation or quarantine. In addition, OAS should develop procedures for supporting families isolated or quarantined in their homes, including delivery of food and necessary supplies. See Appendix A for all recommendations pertaining to Philadelphia Code amendments.

If a pandemic flu event occurs, clear understanding of quarantine authority must be developed. Currently, Commonwealth law and the City Health Code provide the necessary authority to manage and monitor ill or infected persons in the event of a flu pandemic or biological attack. However, the City should review its ability to establish mass quarantine or shelter-in-place of citizens who may not yet have been infected or who show no symptoms of illness but are potentially infected with a disease.

Recommendations:

1. Designate hospitals as part of the critical infrastructure of the City.
2. Assign a seat at the Emergency Operations Center for hospitals, and include them in the City's emergency operations plans and all future City drills and exercises.
3. Develop a comprehensive policy and plan for

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standardizing, stockpiling, storing, tracking and distributing critical medical supplies, equipment, and pharmaceuticals. While the City and region fully expect support from state and federal agencies, recent experience has demonstrated that prudent steps are necessary to ensure key supplies are readily available on a local basis during the early stages of an emergency or disaster.

4. Evaluate the optimal daily EMS service capabilities and the capacity of EMS to surge in response to a major incident, including private ambulances and any National Guard resources.
5. Develop large-scale shelter-in-place and quarantine protocols and clarify legal authority requiring shelter-in-place for the unexposed. Ensure integration with agencies and the courts to include a plan for a comprehensive system for services and resource management—social services, logistical supplies and food, staff, volunteers, facilities, donations, pet care, transportation, and emergency court orders and hearings—that can support a major sheltering or quarantine effort.

4.0 Enhance Federal, State, Regional and Local Partnerships

While the EPRC's primary focus was on the steps Philadelphia could take on its own to enhance the emergency preparedness of the City, the review also identified the need for a more seamlessly coordinated approach by all levels of government on a range of issues.

Furthermore, it is an accepted principle, and a requirement for federal DHS funding, that jurisdictions pursue a regional approach to emergency management. The City of Philadelphia enhanced its relationship with neighboring jurisdictions through the Southeastern Pennsylvania Regional Task Force (formerly the Southeastern Pennsylvania Regional Counter Terrorism Task Force), which was set up by the Commonwealth. The Task Force coordinated regional training and drills for first responders and purchased equipment, which are critical components for enhancing regional capacity to respond to emergencies.

The City needs to expand its regional cooperation by better integrating the private sector, elected officials and the National Guard into emergency preparedness efforts. Previous disasters, including Hurricane Katrina, demonstrated that the federal government may not be able to assist jurisdictions and that regions must be fully self-sufficient for at least 72 hours to one week. This can occur only when strong relationships exist among political and business leadership, emergency management directors, governors, mayors, and city and county managers.

Certain aspects of emergency preparedness are directly linked to federal and Commonwealth policies, laws, regulations, and resources. These policies can serve to either advance or hinder the ability of local governments and their private sector partners to plan for and respond to community emergencies. There are areas where the federal, state and city partnership is working on behalf of Philadelphia's citizens, such as the Southeastern Pennsylvania Regional Task Force.

However, federal policies designed to address the nation and state policies protecting the entire Commonwealth do not always fit with the needs of a complex urban area like Philadelphia, such as the need for increased staffing at the airport and ports. Passenger numbers at the airport have increased from 28.5 million in 2004 to 31.5 million in 2005, straining infrastructure and creating tension with the Transportation Security Agency (TSA) over staffing and jurisdiction. The Philadelphia International Airport (PHL) is more than 100 staff short of the TSA model. Finally, despite a 50 percent increase in annual commercial vessel boarding since 2002, there has been no increase in overall United States Coast Guard (USCG) staffing in Philadelphia.

Recommendations:

1. Create an ongoing forum for the region's highest elected officials and private sector leaders to regularly meet to review key strategic emergency preparedness issues and develop coordinated approaches to region-wide challenges.
2. Conduct a detailed briefing each year or as needed on the status of Philadelphia's emergency preparedness plans and response capabilities for the City's representatives in the General Assembly and in the U.S. Congress.
3. Initiate discussions with the Governor to establish a process for relevant City agencies to meet with their corresponding state agency partners to identify, review, and develop recommendations to resolve key policy questions and adopt operating protocols within the context of NIMS to govern interaction and the sharing of information between these agencies.
4. Amend Commonwealth Law requiring seven day ratification by the City Council of the Mayor's declaration of a state of emergency.
5. Work to amend Commonwealth law that di-

rectly affects the City of Philadelphia. Title 35 of the Pennsylvania Emergency Management Services Code is currently being reviewed by the Commonwealth. In addition to those proposed amendments already identified by the Commonwealth such as expanded protections regarding volunteer liability and worker's compensation, the EPRC recommends an amendment to Commonwealth Law delegating to the Mayor similar powers as provided to the Governor to exercise temporary control of any private, public or quasi-public property if necessary to respond to a disaster, subject to applicable compensation requirements. Without an amendment, there could be delays in responding to large scale evacuations, mass shelter-in-place or quarantine orders relating to disasters affecting Philadelphia. In addition, the EPRC recommends amending the Pennsylvania Juvenile Act to provide county children and youth agencies with greater flexibility to obtain emergency court orders and blanket waivers for the emergency placement of children who may have lost family following a disaster and sharing information with law enforcement agencies to assist with identifying, locating and protecting children.

6. Develop communications and coordination protocols with the Pennsylvania National Guard to support emergency response needs. Agree with the Pennsylvania National Guard to:
 - Develop preplanned force allocation orders

- Provide a list of its emergency response capabilities and assets
- Have a seat at the City's EOC during an emergency

7. Work with the City's congressional delegation and state and regional partners to support increased TSA staffing, given the significant growth in airline passenger activity at PHL and declining resources from TSA.
8. Work with the City's congressional delegation and state and regional partners to achieve increased resources for the USCG Station in Philadelphia and for related public and private sector security resources.
9. Execute the Mutual Aid Agreement that will institutionalize the eleven county tri-state regional task force/workgroup that brings together the five counties of the Southeastern Pennsylvania Regional Task Force with five counties in Southern New Jersey and New Castle County, Delaware.

5.0 Promote Transparency and Community Engagement in Emergency Management

Public participation entails a multitude of efforts to engage, educate, and train citizens. It also includes creating a more open City government that encourages sharing critical information for public benefit. Posting the City's Pandemic Flu Plan was an important step in this direction. Citizens must trust that government will provide reliable and timely information so they can make the best decisions for themselves and their families during a crisis. Absent good information from the City, citizens may make unwise and uninformed decisions based on fear and rumors.

The importance of communicating with the public (residents and visitors) before, during, and after a major crisis cannot be overstated. Residents expect more from government in a crisis, at a time when government capabilities are stretched to or beyond their limits. Public participation necessarily entails participation of people with special needs. The City should plan to focus not only on the needs but also on the capabilities of the City's special needs population.

Currently, the City does not conduct an ongoing program of citizen education concerning basic levels of emergency preparedness to ensure, at minimum, self sufficiency during the first 72 hours of a disaster. Although different departments and nonprofit agencies have reached out to select constituents around certain issues, such as fire prevention, there is no comprehensive, coordinated citywide effort to increase awareness at home, work, school, and throughout the community. City department and agency communications plans generally lack details and thorough command and control protocols, and they do not always contain pre-scripted public protective action recommendations.

Recommendations:

1. Launch, with the assistance of partners from the public and private sectors, a sustainable, regional public education, awareness, and training program focusing on emergency preparedness. Important aspects of this program should include conducting the necessary research, developing measurable performance indicators, working with existing public and private community groups, and targeting populations with special needs.
2. Continue to publish non-confidential emergency plans and information to the City's website for public consumption, and distribute printed copies to publicly accessible facilities such as the libraries, health centers and post offices. Ensure that all technology and information that is provided to the public, whether distributed electronically or in print, is accessible according the guidelines provided by Section 508 of the Rehabilitation Act.
3. Assign a full-time, dedicated Public Information Officer (PIO) for the Philadelphia OEM who would work with the Mayor's Office of Communications to coordinate crisis communications planning, training, and exercises, and all other aspects of public information that would be required by PIOs during an emergency. If the OEM is the lead agency during emergencies and activates the Emergency Operations Center (EOC), the department must have a PIO to facilitate emergency response information with the other departments.
4. Create a strong partnership with the media to create the most effective tools to reach the public before, during, and after disasters. The media wants to work with the City to assist ongoing citizen education efforts as well as to disseminate critical messages during emergencies. Some media

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outlets have offered to host phone banks and air public service announcements, among other programs, to help citizens be better prepared.

5. Create a Crisis Communications Plan for communicating to the public during an emergency. Create a crisis communication plan template for use by all City PIOs for departmental plans. Involve all City departments, agencies, boards, and commissions, with the assistance and oversight of the Mayor's Office of Communications, in creating this template. Create a system to ensure that the plans are reviewed and updated at least annually by the PIOs and to ensure that contact information is accurate at all times. Establish a seamless line of communication during a time of crisis with specific protocols and step-by-step procedures. Develop a plan that can stand alone and is not dependent on a specific individual or individual's knowledge. Create and maintain a standard for how City departments respond to an emergency and how they communicate to the public. As part of this plan, the City should develop protocols with relevant private sector partners, such as hospitals, Red Cross and others, to help ensure consistent communications to the public.

6.0 Ensure Continuity of Government and Continuity of Operations Planning

Recent disasters and today's threat environment demonstrate the need for local jurisdictions to annually examine and assess their Continuity of Government (COG)/Continuity of Operations Planning (COOP). Public and private stakeholders must work in concert on preparedness efforts, since governments and businesses rely on each other for essential services before, during, and after disasters. A concerted continuity planning effort would enhance the locality's response and recovery capacity by providing additional resources during a disaster. Successful planning and execution require that businesses and service providers help planners understand the interrelationship of the City government's business processes with those of other governments and the private sector.

The gap analysis focused primarily on identifying essential functions, critical records, alternate work facilities, IT backup and recovery systems, and lines of succession to facilitate an effective recovery of the City's critical functions. That review also discovered that departmental COG planning activities were weak. Recognizing this, the City of Philadelphia hosted a training seminar on May 30, 2006, to help City agencies write their plans.

review essential functions, succession plans, and equipment needs; and develop specific budgetary line items to support annual COG exercises.

3. Work with the private sector, especially with critical infrastructure and businesses that provide goods and services to the City, to encourage the development of business continuity plans through training and other resources.
4. Support an integrated enterprise information system, which is software for human resource departments to manage thousands of employee records including skills, benefits, and payroll. Such software can be used for all employees of the City government to facilitate business impact analysis, departmental emergency management planning, notification and incident management before, during and after times of emergency.

Recommendations:

1. Establish the responsibility and functions for continuity planning within an enhanced OEM.
2. Require each department to create, finalize, and update their COOP and COG plans annually;

7.0 Protect Critical Infrastructure and Promote Public-Private Partnerships

The definition of critical infrastructure evolved over time but is generally recognized to include the utility, communications, transportation, financial, energy, chemicals, and healthcare sectors. Current federal, Commonwealth and City efforts to identify, classify and protect critical infrastructure fall under the Department of Homeland Security's National Infrastructure Protection Plan.

The Critical Infrastructure Subcommittee of the EPRC focused heavily on the utility, communications, and transportation sectors, and briefly addressed the financial sector, the Independence Mall District, and other private sectors.

The Subcommittee identified the need for a closer relationship between the utilities and the City's emergency management leadership and found that the City-controlled utilities had varying levels of emergency preparedness.

Significant increases in economic activity at airports and maritime ports, as well as the Delaware Riverfront in general will necessitate increases in law enforcement and first responder personnel at the Federal levels.

Additionally, the EPRC identified impressive public-private partnerships already under way, such as the Center City District, which can serve as a model for other efforts in the future.

Recommendations:

1. Utilities: Coordinate with the primary electricity and telecommunications providers and with the publicly-owned water and natural gas utilities to jointly develop a list of restoration priorities and a plan of action to ensure COG and effective emergency management capabilities. Conduct joint table top exercises with the utilities to test the efficacy of such plans.
2. Road and Rail Transportation: Create a high-level position at the Deputy Managing Director level to coordinate transportation planning and functions within the City, including coordination of the interaction of city departments, such as the OEM, Police, Fire, Office of Emergency Shelter Services, Streets, Public Property and the Managing Directors Office. This position also will coordinate the City's interaction with SEPTA and other transit agencies, the Pennsylvania Department of Transportation and regional partners. Continue efforts to improve the cooperation and sharing of information between the rail freight industry and the City.
3. Maritime Ports: Strengthen City policy and operational linkages with the Philadelphia Regional Port Authority in traffic engineering, security and other operational areas, given the current and likely continued growth of activity along the Delaware Riverfront. In addition, work with the City's Congressional Delegation and state and regional partners to achieve increased resources for the United States Coast Guard Station at Philadelphia and for related public and private sector security resources.
4. Airports: Work with the City's congressional delegation and with state and regional partners to



Independence Hall, Courtesy of City Representatives Office

- support increased TSA staffing, given the significant growth in airline passenger activity at PHL and declining resources from TSA. Also, consider creating an airport-based bomb squad or establish a site in closer proximity to PHL. Continue to work with the Federal Aviation Authority on Air Traffic Control backup scenarios.
5. Financial Sector: Work with the financial sector to develop a program of emergency preparedness and credentialing based on national best practices.
 6. National Critical Infrastructure: Continue to build upon current efforts, including Federal Homeland Security-funded safety and security enhancements to refinery facilities to protect the nation's critical infrastructure located within the City of Philadelphia, as well as protecting the residents of Philadelphia.
 7. Public-Private Partnerships: Continue to work with the specific industries noted above and other sectors, including the substantial federal employee sector represented by the Federal Executive Board, to identify critical facilities and work to address vulnerabilities. Build on the work of the national Critical Infrastructure Partnership Council and the respective Sector Coordinating Councils.

8.0 Develop Comprehensive Evacuation Plans

Hurricane Katrina demonstrated the need not only for cities to have evacuation plans but also to have plans to accept, shelter, feed and protect those who are evacuating from other areas. Comprehensive evacuation plans include planning for the care of special needs populations; evacuation of hospitals and long-term care facilities; the use of school facilities and transportation assets; and shelter provisioning, traffic planning, crisis communications, and the care of animals.

Although the City has an Emergency Traffic Management Plan and can use a reverse 911 calling system to notify residents during an event, these plans are not equivalent to a comprehensive evacuation plan and represent just two of the critical components of an overall effort.

During the course of this preparedness review, and at least in part due to questions raised during the review, the Delaware Valley Regional Planning Commission hosted an initial meeting of regional transportation, law enforcement, and emergency management officials from Pennsylvania, Delaware, and New Jersey to consider development of an in-depth regional traffic control evacuation plan. This type of comprehensive plan will enable the City to better plan not only for a catastrophic event, but further enhance its capacity for large scale planned events.

Recommendations:

1. Develop a comprehensive emergency traffic management evacuation plan with the Southeastern Pennsylvania Regional Task Force that would include identification of evacuation scenarios, traffic control points, potential shelters, location of hospitals and other critical care facilities, staging areas, and required traffic management resources. Incorporate appropriate use of Incident Command System, pre-event contracts with towing services, and traffic signal coordination.
2. Prepare and coordinate plans for Philadelphia as a destination site for evacuations from nearby urban and coastal regions.
3. Initiate and actively participate in the development of a regional evacuation plan that incorporates federal, state and local government partners, including EMS, transit agencies with rail and bus assets, SEPTA, the Port Authority Transit Corporation (PATCO), New Jersey Transit, and Amtrak. Explore agreements with agencies such as Maryland's MARC system, which are powered by diesel fuel, in the event of a severe loss of electricity. (This strategy was used by Amtrak on May 25 following the Northeast Power Outage). Include the private sector, such as the Center City District and the Chamber of Commerce, in the development of plans. Include the following components in any evacuations plan in the future:
 - Special needs population planning, to include planning for pets and service animals
 - Hospital and other care facilities planning
 - Traffic management planning
 - Criteria for shelter-in-place vs. evacuation
 - Public information
4. Draft language either as an enumerated power under § 10-819 or in a separate Code provision that gives the Mayor the explicit power to order, but not compel, an evacuation. The Code provision gives the Mayor the authority to halt access or egress upon public highways to or from the

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City and any part thereof and halt the movement of trains, boats, or other vehicles into, within, or from the City. The Philadelphia Code, Home Rule Charter, and Police Department Directives provide the commissioners of Fire, Police, and Licenses and Inspection the authority to order evacuations of dangerous structures in the event of a fire or imminent building collapse, evacuations of a building or neighborhood in the event of a hazardous materials spill, or evacuations in the interest of public safety and security if there is a threat of imminent danger. The EOP has extended this authority to the Mayor to order evacuations without any legal basis, so it is recommended that the EOP be reviewed and revised for legal sufficiency.

5. In the Critical Infrastructure section, there was a recommendation to create a Deputy Managing Director to coordinate transportation. This position should also be responsible for the transportation aspects of evacuation planning.

8.0 Next Steps

While many activities to implement these recommendations have already begun, many recommendations may languish if the effort to advance Philadelphia's emergency management capabilities is not institutionalized within the City's agencies, operations, budgeting, and politics. Institutionalization means that the processes needed for implementation become integrated into daily operations; the people who are involved see these implementation steps as the normal and right way to proceed with their day-to-day activities while also advancing the emergency management agenda. Institutionalizing and implementing emergency preparedness recommendations serve dual functions: they help the City become better prepared and foster standardization and efficiencies within daily operations. For example, comprehensive evacuation/emergency traffic management plans can help daily vehicle flow and can assist in managing the traffic from major planned events.

In addition, the integration of emergency management into daily operations is the means by which communities truly become resilient in their preparedness and response capabilities. This new culture will benefit individuals, departments, and agencies within the City government and throughout the community.

Achieving rapid implementation requires the formation of an Emergency Preparedness and Response Coordination & Implementation Team, consisting of up to 15 members, with no more than one half the members being City staff. Similar to the EPRC structure, it should be directed by two co-chairs, one from the City and one from outside City government. Representation on the committee should include the business community, hospital sector, and an organization that works with special needs populations.

Within 90 days, the team should present to Mayor Street a progress report detailing, at minimum:

- Timeline of accountability
- Prioritized list of recommendations
- Project management scope and need
- Plan to develop partnerships with the private and non-profit sectors
- Financial and personnel resource development plan
- Examination of the City's Hazard Vulnerability Risk Assessment after it has been externally reviewed, vetted and validated

After the initial report, progress reports should be given to the Mayor quarterly. Included within those reports should be observations regarding departmental participation, and the need for, or conduct of, table top and major exercises.